LIST OF CONTENTS

NUMBER 1

T. Adalı and **S. H. Ardalan** 1 On steady-state performance of the fixed-point RLS algorithm

R. Arvind, S. S. Pathak, T. K. Alex and **P. R. Venkateswaran** 17 Digital dual ramp phase modulator for fiber optic gyroscope

A. V. Savkin, I. R. Petersen and **S. O. R. Moheimani** 29 Model validation and state estimation for uncertain continuous-time systems with missing discrete-continuous data

A. M. Soliman and **A. S. Elwakil** 45 Wien oscillators using current conveyors

J.-T. Yan 57 Designing a channel router by hybrid methodology of top routing and bottom routing

NUMBER 2

M. A. Sayeed and **M. Atiquzzaman** 77 Multiple-bus multiprocessor under unbalanced traffic

T. Fernando and **H. Trinh** 95 Lower bounds for stability margin of two-dimensional discrete systems using the MacLaurine Series

B. J. Falkowski and **C.-H. Chang** 111 Hadamard–Walsh spectral characterization of Reed–Muller expansions

J. Liu, M. S. Fadali and **R. Zhou** 135 Performance constrained stabilization of uncertain systems: application to load-frequency control

Computer Software Survey

G. K. Saha 153 A new technique of microprogramming for fault tolerance

NUMBER 3

S. A. Ghozati and **H. C. Wasserman** 155 The *k*-ary *n*-cube network: modeling, topological properties and routing strategies

X.-G. Yan, J. Lam and **G.-Z. Dai** 169 Decentralized robust control for nonlinear large-scale systems with similarity

M. Katiyar and **K. M. M. Prabhu** 181 Angle recoding cordic-based systolic arrays for DFT and DHT of prime length

K. K. Shukla and **Raghunath** 195 An efficient global algorithm for supervised training of neural networks

NUMBER 4

Special Issue
Cryptography and Data Security Techniques

S. Erfani and **L. Harn** 219 Guest editorial
Data security: a walk on the wild side of the Internet

H.-Y. Lin 225 Security and authentication in PCS

C. H. Lim and **P. J. Lee** 249 The Korean certificate-based digital signature algorithm

H.-M. Sun 267 New construction of perfect secret sharing schemes for graph-based prohibited structures

Y.-C. Lee and **C.-S. Laih** 279 On the key escrow system without key exchange

C.-K. Wu and **V. Varadharajan** 291 Boolean permutation-based key escrow

NUMBER 5

Special Issue
Micro-electronic Hardware Implementation of Soft Computing: Neural and Fuzzy Networks with Learning

F. M. Salam and **T. Yamakawa** 305 Guest editorial

F. Vidal-Verdú, M. Delgado-Restituto, R. Navas and **A. Rodríguez-Vázquez** 309 A design approach for analog neuro/fuzzy systems in CMOS digital technologies

T. Morie, K. Uchimura and **Y. Amemiya** 339 Analog LSI implementation of self-learning neural networks

F. Salam, Y. Wang and **H.-J. Oh** 357 A 50-neuron CMOS analog chip with on-chip digital learning: design, development, and experiments

G. Erten and **F. M. Salam** 379 Real time realization of early visual perception

L. Theogarajan and **L. A. Akers** 409 Novel circuits for neural information processing

M. Okamoto, T. Sekiguchi, K. Tanaka, Y. Maki and **S. Yoshida** 421 Biochemical neuron: hardware implementation of functional devices by mimicking the natural intelligence such as metabolic control systems

NUMBER 6

H.-M. Sun 439 On private-key encryption using product codes

M. Zribi and **M. S. Mahmoud** 451 H_∞-control design for systems with multiple delays

G. Ray, A. N. Prasad and **T. K. Bhattacharyya** 477 Design of decentralized robust load-frequency controller based on SVD method

R. P. Marande, R. P. Krahe and **F. K. Fadul** 493 A self-tuning microcontroller-based glass measuring instrument

501 List of referees

I List of Contents, Author and Keyword Indexes for Volume 25 (1999)